OWNER'S MANUAL

Blue OX1050P Series

Installation and Service Manual

INTRODUCTION
FEATURES AND SPECIFICATIONS
SAFETY
WARRANTY
UNPACKING / INSTALLATION
OPERATION
MAINTENANCE
REPLACEMENT PARTS
TROUBLESHOOTING

IMPORTANT

THIS MANUAL CONTAINS PRECAUTIONARY STATEMENTS RELATING TO WORKER SAFETY. READ AND SAVE THIS MANUAL COMPLETELY AND COMPLY AS DIRECTED. ALL THE POTENTIAL HAZARDS OF DUST AND MIST CONTROL SYSTEMS AND EQUIPMENT ARE IMPOSSIBLE TO LIST; THEREFORE, OBTAIN THE SERVICES OF A PROFESSIONAL INSTALLER. A FIRE PROTECTION EXPERT SHOULD BE OBTAINED IN THE EVENT THE PRODUCT IS INTENDED FOR USE THAT PRESENTS A POTENTIAL RISK OF FIRE OR FIRE PROPAGATION. REFER TO APPROPRIATE AUTHORITIES, AND DISCUSS YOUR INTENDED USE WITH YOUR LOCAL DISTRIBUTOR OR BLUE OX. WORKERS HANDLING EQUIPMENT OR SYSTEMS SHOULD BE INSTRUCTED TO CONDUCT THEMSELVES IN A SAFE MANNER.

RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE

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SPECIFICATIONS OF THE BLUE OX1050P

Cabinet 16 GA Welded Cold-rolled Steel

Finish Circuit Blue Polyester Powder Coating Paint (Available in Brown and Black)

Dimensions

Standard Unit	72" High	35" Wide	24" Deep
2 H.P. Upgrade	74" High	35" Wide	36" Deep (Lower Center of Gravity)

Unit Options

Model Number	Unit Type	Maximum CFM	Maximum CFM-2.0 H.P
OX1050P	Standard Unit	1050	2000
OX1050P-DA	Dual Fume Arm	1400	2600
OX1050P-DD	Down Draft Table Upgrade	1500	2800
OX1050P-HE	HEPA Filter Upgrade	850	1600
OX1050P-CC	Carbon Canister Upgrade	850	1600

Shipping Weight

Standard ……..350 lbs.
Dual Arm …….. .496 lbs.
Down Draft Table …….397 lbs.
HEPA Filter……..390 lbs.
Carbon Canister…….422 lbs.

*** Add ~120 lbs. for 2 H.P. Upgrade ***

Power Standard unit is 115V - 12' long 3 wire power cord @ 8.5 Amps and ~970 Watts.
Optional 2.0 HP model uses 208-230 VAC current @ 6.0-5.8 Amps at ~1250 watts- ~1300

Capacity 1050 CFM for Standard Unit - 2000 CFM for 2.0 H.P. Motor Upgrade

Motor Direct Drive Permanent Split Capacitor Type with Auto Reset on Thermo-overload Protection
1625 RPM -- Unit operates at ~50 Decibels at 5 feet distance (¾ H.P.)

Switch Two Position On/Off Rocker type switch with Red indicator light to denote "ON" position.
A door activated kill switch stops the current to the motor when the main filter door is opened

Blower 10 by 10 Direct Drive Centrifugal Forward Curve

Grille Four-way Direction Exhaust Louver is located on the top of the unit discharging vertically

Casters 5" Casters – 2 Rigid and 2 Swivel type with Foot operated floor lock – (2 H.P. gets wide Casters)

Filters 20" x 24" x 4" Aluminum Mesh Pre-filter (Pleated Filter Available for Non-Spark Applications)
20" x 24" x 30" Hung Bag Filter with 8 Pockets-65% or 95% efficiency available
20" x 24" x 18" Hung Bag Filter with 8 Pockets-65% or 95% efficiency available -(CC or HE Units)
CC Units come with 36lb Carbon Canister
HE Units come with 18" x 24" x 12" HEPA 99.97% Filter

Filter Options 20" x 24" x 2" Aluminum Oil Impenger (Replaces 4" Aluminum with 2" Aluminum Pre-Filter)
20" x 24" x 2" Aluminum Mesh Pre-Filter (Pleated Filter Available for Non-Spark Applications)

SAFETY RULES

Follow all electrical and safety codes as well as the National Electrical Code (NEC), National Fire Protection Association (NFPA), and the Occupational Safety and Health Act (OSHA).
Only qualified personnel should perform all electrical connections and wiring.

National Fire Protection Association (NFPA) standards require specific duct design and dust collector configuration when collecting potentially reactive metal dusts, such as aluminum, magnesium, and other materials. NFPA also covers other dusts such as grain and plastics, etc. A guideline for determining the precautions to be taken can be found in NFPA 497. Other NFPA standards may apply to your specific application. Consult current NFPA standards, available for NFPA, 1 Batterymarch Park, Quincy, MA, 02269, 800-344-3555, for applicable safeguards which may be required for the Installation, Operation, and Service of this product.

Additional references are the Uniform Building Code and the Uniform Mechanical Code.

WARNING

1. Avoid mixing combustible materials such as (but not limited to) buffing lint, paper / wood dust, aluminum or magnesium with dust generated from the grinding of ferrous materials. This creates a potential for fire due to the mixing of sparks and combustible materials.

2. Under no conditions should the machine operator be allowed to put lit cigarettes or any burning object into this or any dust/mist control system.

3. Installation of this unit in applications where there is a chance for heated and/or flammable materials to enter the unit should be evaluated to determine if a fire protection/extinguishing system should be installed. Federal, state or local codes, a required by organizations such as NFPA and Factory Mutual Insurance or your insurance carrier may require such a system. Air Cleaning Specialists, Inc. can offer basic guidelines for such an installation; however, **final installation design is the responsibility of the filtration unit Owner/User.**

4. Explosion relief vents are required on some applications. Consult with an insurance underwriter or an NFPA manual to determine proper vent size ratio. Dust or mist collectors must be located outdoors unless otherwise indicated by NFPA standards. Dust and mist collectors DO NOT CONTAIN EXPLOSION RELIEF VENTS as shipped from the factory and must be field installed per NFPA standards.

ALWAYS USE BLUE OX REPLACEMENT FILTERS & PARTS TO MAINTAIN WARRANTY.
TO ORDER REPLACEMENT PARTS CALL 866-455-2135 OR EMAIL info@aircleaningspecialists.com.

"Circuit Blue" Polyester Powder Coating Paint (Available in Brown and Black)

SAFETY

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APPROPRIATE AUTHORITIES, AND DISCUSS YOUR INTENDED USE WITH AIR CLEANING SPECIALISTS, INC.

DISCLAIMER

Although instructions and recommendations are included for installation or your mist or dust collector equipment, the manufacturer does not assume responsibility for the installation of this equipment nor shall be held liable for direct or consequential damages resulting from improper methods, structural failure or inadequate supports.

Initial Inspection

If your new BLUE OX units were shipped in by truck you should inspect the carton for damages or possible shortages. If there are any signs of possible shipping damages, unpack the units and make a note of the shortage or damage on the freight bill **before signing it**. If the carton is opened at a later time and there is damage to the unit, you should file a concealed damage claim with the delivery carrier. They are responsible for any damages in shipment or shortages that were actually shipped.

Installing Your New Blue OX Units

All portable 1050P Units have Caster Wheels which make the unit portable. However they do need to draw power from the building. The 2.0 H.P. motor will need to be connected to 208-230 VAC current. Caster wheels can be removed for permanent placement of the unit. 2.0 H.P units have 6" wide caster extensions for more stable operation.

Blue OX products are designed to improve your environment. 1050P series collects dust, smoke, oil mist, oil smoke, and other atmospheric pollutants in industrial plants, shops, schools, and factories with high efficiency, 2 or 3 stage filtration. It is a complete portable air filter unit that can be installed easily and used as a free standing air filter unit to clean the ambient air of pollutants, smoke and mist captured at or near the source.

The Blue OX1050P consists of a 4" Aluminum mesh pre-filter that prevents sparks and hot debris from entering the main filter area. The second stage, consists of a micro-glass multi-pocket bag filter which has either 65% or 95% efficiency (depending on the application) on the atmospheric dust spot test, removing smoke and other submicron size particles from the air. Changing out the filters is easy as it requires no tools. The 4" aluminum mesh (or pleated pre-filter) pulls from the unit and can washed and replaced (not the pleated pre-filter option). The main filter is located directly above the 4" pre-filter and pulls out also. Since the top end is suspended by loops on a rod, you will want to unclip the rod from the unit before trying to remove the loops from on the bag. In order to reduce or eliminate odors, there is an optional Charcoal Canister module available which places 36 lbs. of activated charcoal in the unit after the bag filter.

MOTORS

All direct drive motors are protected with automatic restart overload protection.
All belt driven units must be protected externally.

OPERATION

Do not operate your units without filter for more than a few minutes at a time.

MAGNEHELIC PRESSURE GAGE OPTION

This is an option to help determine when to change the filters. As the bags fill with contaminants, the needle on the gage will rise. We recommend changing the bags between 1.25 – 1.50 above the reading with clean filters. It is normal to change the pleated twice (or more) as much as the inside bag filter. The reading may vary depending upon the contaminants. Please consult your Sales Engineer for further information

FILTERS

All units are equipped with replaceable type media filters. In some cases, where contaminants being picked up are dry, it is possible to blow the pre-filters and reuse them. Filters are available in a number of different degrees

of efficiencies. The filters in your new OX1050P unit have been selected by your representative to best collect your particular type of contaminant.

Media type filters actually become more efficient as they load with contamination. However, as the filters load up, the air flow volume will decrease and eventually will reach a point where they must be replaced to restore the original air flow. Changing the filters in your new OX1050P air cleaner is easy. Old filters are simply pulled out of the entrance end of the unit and new filters are installed. No tools are required. Turning the unit on when installing new filters will help to pull them into place.

GENERAL NOTE: CLEANING AND INSPECTION OF CABINET

After the dirty components have been removed, inspect the cabinet interior. Remove foreign material, wipe interior, and clean all filter seating surfaces.

When installing new filters, be sure to install the hanging rod through the bag loops (on the end of the filter). This will allow the air to easily inflate the bag when the unit is started and prevent "bunching" of the bag media. Any pleated pre-filter that is used should be installed with the wire mesh to the upward side of the unit – vertical airflow. Replacement filters can be supplied by your representative.

LOUVERS

Four way lovers are provided on all units to permit you to direct the discharge air away from pilot lights on heaters and to help you obtain the best air flow pattern for maximum cleaning.

ACCESSORIES

Standard on all Blue OX1050P units is a full-width handle/power cord storage. This steel handle makes it easy to move your portable unit, and never worry to have the power cord hung up. Also, the units feature a full-length debris tray to hold large particulate. The tray opens via a hanged access door and handle.

PICK-UP ARM

The pickup arm is of a very unique design that incorporates a number of features not available on other portable air cleaners. These features result in better performance in picking up the contaminants through increased airflow, and eliminates many of the service problems encountered with other types of arms.

Arms can be adjusted without removal from the unit, and are 9 and a half feet long. It has a 12" flared opening on its end. Arm tubes are made of 16 gage aluminum and Arm hose is made from 8" diameter high temperature flexible duct.

Air flow through the arm is enhanced by the lack of support shafts or friction locks on the INSIDE. Our arm design utilizes the full 8" diameter tube and hose to carry contaminated air to the filter area. The result of this can be higher airflow rates while using less horsepower (and current) to drive the air cleaner. The unit has 3 distinct areas of adjustment, which will adapt to nearly any setup.

PARTS

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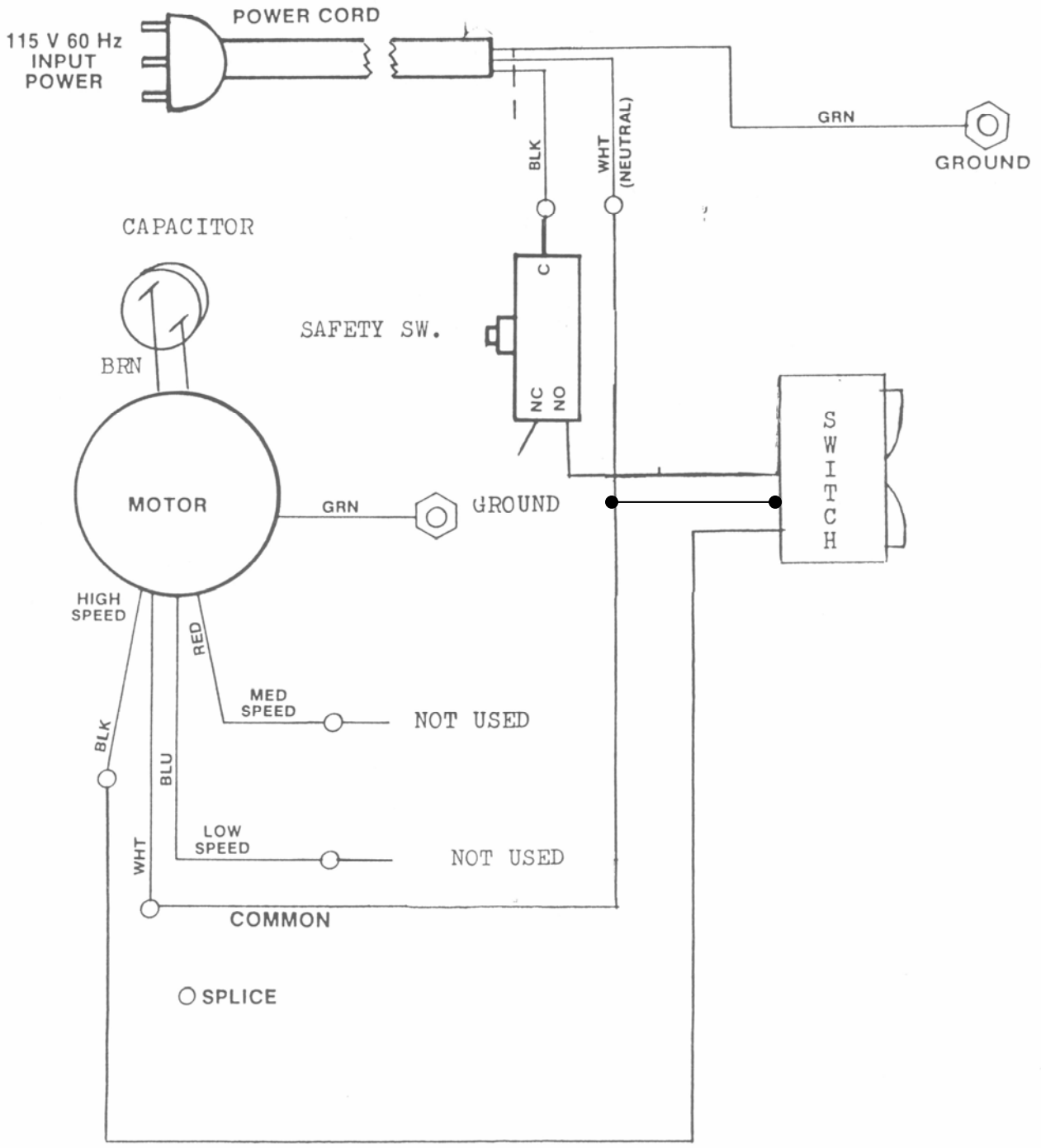
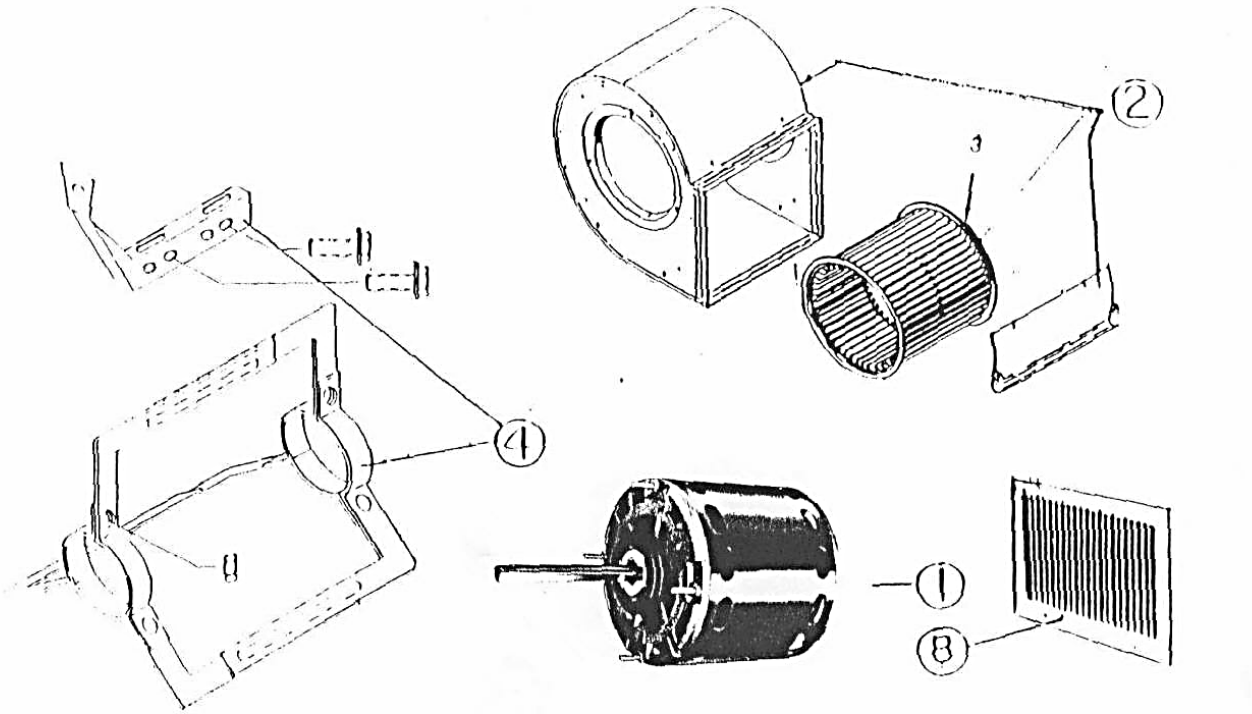
TO ORDER REPLACEMENTS PARTS: CALL 866-455-2135 | EMAIL info@aircleaningspecialists.com.
826 Horan Drive, Fenton, MO 63026

M-35P Wiring Diagram



Blue OX1050P Motor Parts List



ITEM	PART #	DESCRIPTION
1	35-1000	3/4 H.P. 115 V 1625 RPM MOTOR
2	35-1500	10" COMPLETE BLOWER LESS MOTOR
3	35-1501	BLOWER WHEEL ONLY
4	35-1502	MOTOR MOUNT ONLY
5	35-2000	SINGLE SPEED "OFF/ON" SWITCH
6	35-2001	ACCESS DOOR SAFETY SWITCH
7	35-2002	12' POWER CORD 3 WIRE
8	35-3000	ADJUSTABLE DISCHARGE LOUVER
9	35-3500	COLLECTION TRAY
10	35-3501	ACCESS DOOR LATCHES
11	35-3502	SWIVEL CASTER
12	35-3503	RIGID CASTER
13	35-3504	KICK STAND
14	35-3505	95% FILTER BAG
15	35-3506	65% FILTER BAG
16	35-3507	4" ALUM MESH PREFILTER
17	35-3508	4" PLEATED PREFILTER

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826 Horan Drive, Fenton, MO 63026
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Blue OX1050P Parts Listing

OX1050P Replacement Filters

ITEM	PART #	DESCRIPTION
1	**SP9508-0418L**	20" X 24" X 18" 95% Bag Filter(8 Pocket) with Loops (CC & HE)
2	**SP6508-0418L**	20" X 24" X 18" 65% Bag Filter(8 Pocket) with Loops (CC & HE)
3	**SP9508-0430L**	20" X 24" X 30" 95% - Bag Filter (8 Pocket) with Loops
4	**SP6508-0430L**	20" X 24" X 30" 65% - Bag Filter (8 Pocket) with Loops
5	**HE40-0404**	20" x 24" x 4" - Pre-Filter - Pleated Hi-E 40
6	**BOF-0404-AM**	20" x 24" x 4" - Pre-Filter - Aluminum Mesh
7	**HE40-0402**	20" x 24" x 2" - Pre-Filter Pleated - (Use with Oil Imprenger)
8	**BOF-0402-AM**	20" x 24" x 2" - Pre-Filter Aluminum - (Use with Oil Imprenger)
9	**BOF-0402-AO**	20" x 24" x 2" - Aluminum Oil Impenger (Oil Mist Applications)
10	**BOF-0402-PP**	20" x 24" x 2" - Poly Pad
11	**BOF-8412-HEPA**	18" x 24" x 12"- HEPA Replacement Filter

Troubleshooting

Problem	Remedy
Motor starts with a whine and does not reach full speed.	If three-phase powered, stop motor immediately. It may be "single phasing" and will overheat, possibly damaging internal windings. Check fuses and/or wires for an interruption in one of the lines. The motor may be operating on two phases only.
Motor makes a scraping or knocking noise.	Check motor cooling fan and its cover. It may have been damaged or shifted in transit and motor fan is rubbing. Check for loose blower wheel on motor shaft – tighten if necessary.
No suction or pressure, or some suction but not as required (low or no airflow).	Check and open all dampers, if installed. Check ducting for blockage, if installed. Check for dirty or blocked filters (refer to Maintenance section). Check rotation of fan.
Excess vibration.	Check structural support members. Tighten all bolts on legs and cross braces. Make sure entire structure is solid. Check for loose blower wheel – tighten if necessary.
Contaminants blowing through unit.	Check for torn or damaged filters. Check filter seals. If carbon module is used, make sure filter sock in place. Check door seals.
Motor over-amping nameplate.	Access door open, close doors. Incorrect filters or no filters in the unit. Ductwork faulty.

If after performing the above TROUBLESHOOTING the unit fails to perform to specifications, contact:

Air Cleaning Specialists, Inc.

826 Horan Drive - Fenton, MO 63026

CALL 866-455-2135 | EMAIL info@aircleaningspecialists.com

Motor Trouble Guide

The purpose of this guide is to suggest common answers to electrical problems. The information is not all-inclusive and does not necessarily apply in all cases. When unusual operating conditions, repetitive failures, or other problems occur, consult an electric motor service firm for assistance.

Trouble	Cause – What To Do
Motor fails to start.	Blown fuses – Replace with time-delay fuses or circuit breakers. Check for grounded winding. Low voltage – Use higher voltage tap on transformer terminals, increase wire size. Check for poor connections. Improper line connections – Check connections against diagram supplied with motor. Overload tripped – Check and reset relay in starter. Check heater rating against motor nameplate current rating. Check motor load. If the motor has manual re-set thermal protector, check if it has been tripped. Motor may be overloaded – Reduce load. Increase motor size. If permanent split capacitor motor, capacitor may be open – Indicated by humming sound. Replace run capacitor. See nameplate for correct value. Defective motor or starter – Repair or replace.
Motor stalls.	Overloaded motor – Reduce load or increase motor size. Low motor voltage – See that nameplate voltage is maintained.
Motor does not come up to speed.	Not applied properly – Consult motor service firm for proper type. Use larger motor.
Motor takes too long to accelerate.	Excess loading; high inertia load – Reduce load. Increase motor size. Inadequate wiring – Increase wire size. Check for poor connections. Applied voltage too low – Reconnect to a higher transformer tap. Increase wire

	size. Check for poor connections. Defective motor – Repair or replace. Inadequate starting torque – Replace with higher horsepower motor.
Motor vibrates or is excessively noisy.	Motor misaligned – Realign. High voltages – Check wiring connections, transformer. Worn, damaged, dirty or overloaded bearings – Replace, check loading and alignment. Loose or defective or out-of-balance air mover – Tighten set screw(s), repair or replace.
Insufficient speed change.	Insufficient motor load – Use a lower horsepower motor. Reduce system restrictions (blower). Increase system restriction (blower fan).
Motor overheats while running under load.	Overload – Reduce load; increase motor size. Dirt preventing ventilation – Clean motor. Faulty connection – Clean, tighten or replace. High or low voltage – Check voltage at motor; should not be more that 10% above or below rated. Defective motor – Repair or replace.